

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 December 2004 (09.12.2004)

PCT

(10) International Publication Number
WO 2004/106874 A1

(51) International Patent Classification⁷:
G01N 21/25

G01J 3/28,

(81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/EP2003/005758

(22) International Filing Date:

2 June 2003 (02.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

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(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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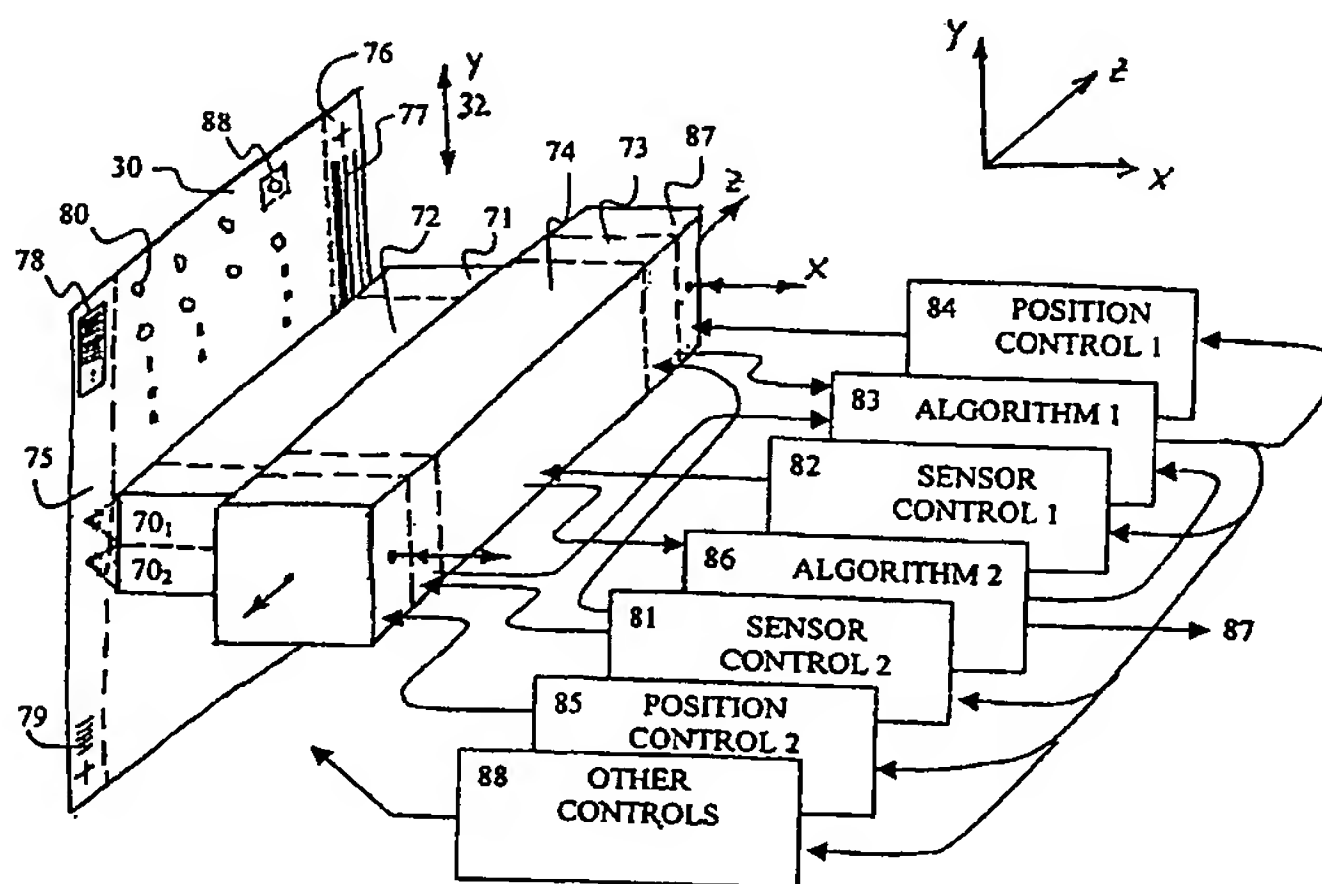
Published:

— with international search report

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: APPARATUS AND METHODS FOR PHOTO-ELECTRIC MEASUREMENT



(57) Abstract: The invention relates to an apparatus and a method for photo-electric measurement. The apparatus comprises a single or a plurality of photo-electric conversion devices, preferably array sensor(s) such as CCD, CMOS, CID and the like, an optical system of any desired size on an object, with any desired resolution, wherein the said optical system preferably separates the said electromagnetic radiation modularly into a plurality of smaller segments, and projects electromagnetic radiation corresponding to the said smaller segments onto said single or a plurality of individual photo-electric conversion devices and sensor electronics related to said photo-electric conversion device(s) which enable the operating mode and functionality of said photo-electric conversion device(s) to be defined and changed in real-time, whereby functions such as the readout sequence of pixels and unlimited flexibility of pixel binning in two dimensions are fully programmable, and said photo-electric conversion device(s) may operate and/or be controlled independently and/or simultaneously.